

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-33. (Cancelled)

34. (Currently Amended) The device of Claim 108 ~~[[33]]~~, further comprising a fastening device adapted to be disposed through the first aperture and the second aperture and engage the device ~~the apertures and engaging the plate~~ to secure the first and second bone fixation regions to one or more portions of bone.

35. (Cancelled)

36. (Original) The device of Claim 34, wherein the fastening device is comprised of an externally threaded lower shaft portion for engaging a bone, an externally threaded upper shaft portion, and a head member that is internally threaded for engaging the upper shaft portion.

37. (Original) The device of Claim 36, wherein the head member is externally threaded for engaging one of the internally threaded apertures.

38. (Original) The fastening device of Claim 36, wherein the fastener includes a flange portion between the lower shaft portion and the upper shaft portion.

39. (Original) The device of Claim 34, wherein the fastening device is made from a bio-resorbable material.

40. (Original) The device of Claim 34, wherein the fastening device is made from a bio-compatible material.

41. (Original) The device of Claim 34, wherein the fastening device includes a pointed end portion.

42. (Cancelled)

43. (Currently Amended) The device of Claim 108 [[33]], wherein each of the first and second apertures are internally threaded.

44. (Currently Amended) The device of Claim 108 [[33]], wherein ~~one or more~~ of the bridge region is ~~regions are~~ aligned so as to span the fracture or osteotomy.

45. (Currently Amended) The device of Claim 108 [[33]], wherein ~~one or more~~ of the bridge region is ~~regions are~~ aligned so as to span the bone.

46. – 53. (Cancelled)

54. (Currently Amended) The device of Claim 108 ~~[[33]]~~, wherein the bone fixation regions are coupled on one or more ends to one or more intersecting bridge regions.

55. (Currently Amended) The device of Claim 108, ~~[[33]]~~ wherein the bone fixation regions are coupled on one or more ends to one or more bridge regions, one of the one or more bridge regions defining a common bridge region.

56. – 65. (Cancelled)

66. (Currently Amended) The device of Claim 108 ~~[[33]]~~, wherein the device ~~plate~~ includes bio-compatible material.

67.-71. (Cancelled)

72. (Currently Amended) A sternal closure for coupling bone ácross a fracture or osteotomy, comprising:

a plate having a lower surface facing the bone, an upper surface opposite the lower surface, and a perimeter surface between the upper surface and the lower surface, the plate including at least two bone fixation regions and a bridge region disposed between the bone fixation regions, each bone fixation region having at least one aperture, ~~the bridge region being specifically configured for engagement by a suitable covering device; and~~

a fastening device adapted to be disposed through the apertures and engaging the plate to secure the plate to one or more portions of bone;

wherein the apertures are internally threaded; and

wherein the fastening device includes an externally threaded lower shaft portion for engaging the bone, an externally threaded upper shaft portion, and a head member that is internally threaded for engaging the upper shaft portion.

73. (Previously Presented) The device of Claim 72, wherein the bridge region includes a narrowed portion along at least one of the upper surface, lower surface and perimeter surface.

74. (Previously Presented) The device of Claim 73, wherein the narrowed portion includes a cross-section selected from a group comprising: cylindrical, elliptical, oval, square.

75. (Previously Presented) The device of Claim 72, wherein the bridge region tapers between the at least two bone fixation regions.

76. – 77. (Cancelled)

78. (Currently Amended) The device of Claim 72 ~~[[77]]~~, wherein the head member is externally threaded for engaging one of the internally threaded apertures.

79. (Currently Amended) The device of Claim 72 [[77]], wherein the fastener includes a flange portion between the lower shaft portion and the upper shaft portion.

80. (Previously Presented) The device of Claim 72, wherein the fastening device is made from a bio-resorbable material.

81. (Previously Presented) The device of Claim 72, wherein the fastening device is made from a bio-compatible material.

82. (Previously Presented) The device of Claim 72, wherein the fastening device includes a pointed end portion.

83. (Cancelled)

84. (Previously Presented) The device of Claim 72, wherein the bridge region is aligned so as to span the fracture or osteotomy.

85. (Previously Presented) The device of Claim 72, wherein the bridge region is aligned so as to span the bone.

86. – 91. (Cancelled)

92. (Previously Presented) The device of Claim 72, wherein the bone fixation regions are coupled on one or more ends to one or more intersecting bridge regions.

93. (Previously Presented) The device of Claim 72, wherein the bone fixation regions are coupled on one or more ends to one or more bridge regions, one of the one or more bridge regions defining a common bridge region.

94. – 100. (Cancelled)

101. (Previously Presented) The device of Claim 72, wherein the plate includes bio-compatible material.

102. – 107. (Cancelled)

108. (New) A device for coupling bone across a fracture or osteotomy, comprising:

a first bone fixation region having a first surface and a second surface that is opposite the first surface;

a second bone fixation region having a third surface and a fourth surface that is opposite the third surface;

a bridge region extending between the first bone fixation region and the second bone fixation region, the bridge region includes a fifth surface and a sixth surface that is opposite the fifth surface;

an upper plane extending from the first surface to the third surface;

a lower plane extending from the second surface to the fourth surface, the lower plane is opposite the upper plane, the lower plane contacts the bone when the device is mounted to the bone;

a first gap between the fifth surface and the upper plane, the fifth surface proximate to and offset from the upper plane;

a second gap between the sixth surface and the lower plane, the sixth surface proximate to and offset from the lower plane;

a first aperture extending through the first bone fixation region from the first surface to the second surface; and

a second aperture extending through the second bone fixation region from the third surface to the fourth surface.

109. (New) The device of Claim 108, wherein said bridge region further comprises a first perimeter surface and a second perimeter surface opposite the first perimeter surface, the first and second perimeter surfaces are between the fifth and sixth surfaces;

wherein the first bone fixation region further comprises a third perimeter surface and a fourth perimeter surface opposite the third perimeter surface, the third and fourth perimeter surfaces are between the first and second surfaces;

wherein the second bone fixation region further comprises a fifth perimeter surface and a sixth perimeter surface opposite the fifth perimeter surface, the fifth and sixth perimeter surfaces are between the third and fourth surfaces;

wherein the first perimeter surface is recessed within the third and fifth perimeter surfaces; and

wherein the second perimeter surface is recessed within the fourth and sixth perimeter surfaces.

110. (New) The device of Claim 108, wherein said bridge region has a generally cylindrical cross-section.

111. (New) A device for coupling bone across a fracture or osteotomy comprising:

a first bone fixation region having a first surface and a second surface that is opposite the first surface;

a second bone fixation region having a third surface and a fourth surface that is opposite the third surface;

a bridge region extending between the first bone fixation region and the second bone fixation region, the bridge region includes a fifth surface and a sixth surface that is opposite the fifth surface, the fifth surface is recessed relative the first and third surfaces to form a first gap, the sixth surface is recessed relative the second and fourth surfaces to form a second gap;

a first aperture extending through the first bone fixation region from the first surface to the second surface; and

a second aperture extending through the second bone fixation region from the third surface to the fourth surface.

112. (New) The device of Claim 111, wherein the fifth surface is proximate to the second and fourth surfaces and distal to the first and third surfaces.

113. (New) The device of Claim 111, wherein the sixth surface is proximate to the first and third surfaces and distal to the second and fourth surfaces.

114. (New) The device of Claim 111, further comprising a fastening device operable to cooperate with each of the first and second apertures and engage the bone.

115. (New) The device of Claim 114, wherein the fastening device is comprised of an externally threaded lower shaft portion for engaging a bone, an externally threaded upper shaft portion, and a head member that is internally threaded for engaging the upper shaft portion.

116. (New) The device of Claim 115, wherein the head member is externally threaded for engaging one of the internally threaded apertures.

117. (New) The device of Claim 115, wherein the fastener includes a flange portion between the lower shaft portion and the upper shaft portion.

118. (New) The device of Claim 114, wherein the fastening device is made from a bio-resorbable material.

119. (New) The device of Claim 114, wherein the fastening device is made from a bio-compatible material.

120. (New) The device of Claim 114, wherein the fastening device includes a pointed end portion.

121. (New) The device of Claim 111, wherein each of the first and second apertures are internally threaded.

122. (New) The device of Claim 111, wherein the bridge region is aligned so as to span the fracture or osteotomy.

123. (New) The device of Claim 111, wherein the bridge region is aligned so as to span the bone.

124. (New) The device of Claim 111, wherein the bone fixation regions are coupled on one or more ends to one or more intersecting bridge regions.

125. (New) The device of Claim 111, wherein the bone fixation regions are coupled on one or more ends to one or more bridge regions, one of the one or more bridge regions defining a common bridge region.

126. (New) The device of Claim 111, wherein the plate includes bio-compatible material.

127. (New) The device of Claim 111, further comprising a longitudinal axis extending through a center of the bridge region from the first bone fixation region to the second bone fixation region;

wherein the bridge region further comprises a first perimeter surface and a second perimeter surface opposite the first perimeter surface;

wherein the first bone fixation region further comprises a third perimeter surface and a fourth perimeter surface opposite the third perimeter surface;

wherein the second bone fixation region further comprises a fifth perimeter surface and a sixth perimeter surface opposite the fifth perimeter surface; and

wherein the first and second perimeter surfaces are closer to the longitudinal axis than each of the third, fourth, fifth, and sixth perimeter surfaces.

128. (New) The device of Claim 127, wherein the bridge region has a generally cylindrical cross-section.